Bluetooth GPS Receiver Series
Model: BT-5721 / 5722

USER MANUAL

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2F., No.136, Ziqiang S. Rd., Zhubei City, Hsinchu County 30264, Taiwan (R.O.C.)
TEL：886-3-6578491 FAX：886-3-6578492

MADE IN TAIWAN

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Notice

Thank you for purchasing the high-performed BT-5 Bluetooth GPS Receiver. To manipulate the Bluetooth Receiver and GPS Software, please take the time to read through this user manual to understand the operating features.

Warning: If you choose to use the BT-5 Bluetooth GPS Receiver in a vehicle, it is the sole responsibility of the owner/operator of the BT-5 Bluetooth GPS Receiver to secure the GPS unit so that it will not cause damage or personal injury in the event of an accident. Do not mount the BT-5 Bluetooth GPS Receiver over airbag panels or in a place where the driver or passenger are likely to have an impact with it in an accident or collision.

Warning: If you choose to use the BT-5 Bluetooth GPS Receiver in a vehicle, it is the sole responsibility of the operator of the vehicle to operate the vehicle in a safe manner, maintain full surveillance of all driving conditions at all times, and never become distracted by the BT-5 Bluetooth GPS Receiver to the exclusion of safe operating practices. It is unsafe to operate the BT-5 Bluetooth GPS Receiver while you are driving. Failure by the operator of a vehicle equipped with the BT-5 Bluetooth GPS Receiver to pay full attention to operating the vehicle and road conditions while the vehicle is in motion could result in an accident or collusion with property damage and personal injury.

Caution: It is the users' responsibility to use this product prudently. This product is intended to be used only as a travel aid and must not be used for any purpose requiring precise measurement of direction, distance, location, or topography.

Caution: The Global Positioning System (GPS) is operated by the government of United State, which is solely responsible for its accuracy and maintenance. The system is subject to changes which could affect the accuracy and performance of all GPS equipment. Although the BT-5 Bluetooth GPS Receiver is a precision electronic NAVigation AID (NAVAID), any NAVAID can be misused or misinterpreted and, therefore, become unsafe.

1. Introduction

BT-5 Bluetooth GPS Receiver is a mobile GPS receiver combined an advanced GPS receiver, a mini antenna and Bluetooth wireless technology together. It is the perfect solution for you seeking a compact and wireless GPS receiver that consumes low power and has a long battery life with high gain.

The **BT-5721/5722** Bluetooth GPS Receiver is a total solution GPS receiver with Bluetooth, USB Interface and built-in rechargeable battery for time to first fix. **BT-5721/5722** design is based external Bluetooth chipset and UniTraq's GPS module with low power consumption.

This positioning application meets strict needs such as car navigation, mapping, surveying, security, agriculture and so on. Only clear view of sky and certain power supply are necessary to the unit, **BT-5721/5722** contacts to other device via Bluetooth or USB device(**BT-5722** only), and built-in recharge battery to keep almanacs and ephemeras data.

With low power consumption, the **BT-5721/5722** tracks up to 65 satellites at a time, re-acquires satellite signals less than 1s and updates position data every second.

2. Features

- Compatible with Bluetooth serial port profile (SPP) completely.
- Support USB interface make **BT-5722** just like USB-mouse when user are using PC charging.
- 65 parallel satellite-tracking channels for fast acquisition and reacquisition.
- Support NMEA0183 V3.01 data protocol.
- Built-in 1000mAh Lithium-polymer battery inside makes **BT-5721/5722** continue work to 8hr.
- Built-in rechargeable battery for supply power to internal SRAM keeping almanac and ephemeris for time to first fix(TTFF).
- Four LED with four different colors which show the devices status.
- Provide MMCX connector for connecting active antenna to get better satellites signal reception.
- Built-in ceramic patch antenna inside.

3. Specifications

3.1 GPS Specifications

Parameter	Specification
Receiver Type	65 channels
Re-acquisition sensitivity	-155dBm
Tracking sensitivity	-158dBm
Cold start sensitivity	-137dBm
Receiver frequency	1575.42MHz
Code	C/A code
Accuracy Position Velocity	 5m CEP 0.1m/sec
Startup Time hot start cold start	 < 1 sec < 35 sec
Signal Reacquisition	<1s
Update Rate	1Hz
Operational Limits (1) Altitude (2) velocity	 < 18,000m < 500m/s
Dynamics	4G (39.2m/sec^2)
Datum	WGS-84
Protocol	NMEA-0183 V3.01

3.2 Bluetooth Specifications

Frequency range: 2.40~2.48GHz

Bluetooth Version: 2.0

Class: 2 (10m)

Sensitivity: -80dBm

Support Profile: serial port profile (SPP)

Stack: (4279) cyt_8unified_fl_bt2.0_22_0702091828_encr56 2007-02-09

3.3 Power Specifications

External Power: 5VDC/1A

Battery: 1000mAh Lithium-polymer battery for system

3.4 Output and Interface Specifications

3.4.1 Output protocol

Baud rate: 4800bps

Data bit: 8

Parity: none

Stop bit: 1

3.4.2 Output format

NMEA 0183 V:3.01

GPGGA/ GPGSA/GPGSV/GPRMC (1/Sec)

3.4.3 Data communication interface

Bluetooth 2.0 with SPP profile

USB interface (for **BT-5722** only)

3.4.4 External antenna connector

MMCX type/3.3V output

3.5 Physical Specifications

Size:80×60×10 mm

Weight: 154g

Operation temperature: -20℃~+60℃

Storage temperature: -40℃~+80℃

Operation humidity: 5% to 95% no condensing

3.6 Other Specifications

LED indicators Bluetooth/GPS/Low battery and charging status.

4. Accessories:

4.1 Standard Accessories

1. GPSView Software & User Manual CD
2. Anti Slip Car Pad

4.2 Optional Accessories:

1. Travel Charger
2. USB cable
3. Car Charger

5. Operations:

5.1 Hardware Descriptions:

1.Built-in Antenna

2.LED Lights (For 5722)

Red light: Being charging battery

Blue light(flashing): Waiting for Bluetooth connection

Blue light: Being receiving Bluetooth signal

Green light (continuously) : not fixed

Green light (flashing, 1 second on/1 second off) : Position fixed

LED Lights (For 5721)

Green light (continuously): Being charging battery

Green light (flashing) Out of charge

Blue light (continuously): Waiting for Bluetooth connection

Blue Light(flashing) : Receiving blue tooth signal

Red light (flashing, 2 second on/1 second off) : Waiting for the position fix

Red light (flashing, 1 second on/1 second off) : Position Fixed

3.The Power Button

Turns the unit on and off

5.2 Charging Battery:

You can use car charger to connect BT-5 Bluetooth GPS Receiver with battery of car, or use travel charger to connect with an outlet. When battery is been charging, the red LED on the GPS receiver lights continuously.

5.3 Install USB driver (For BT-5722 only)

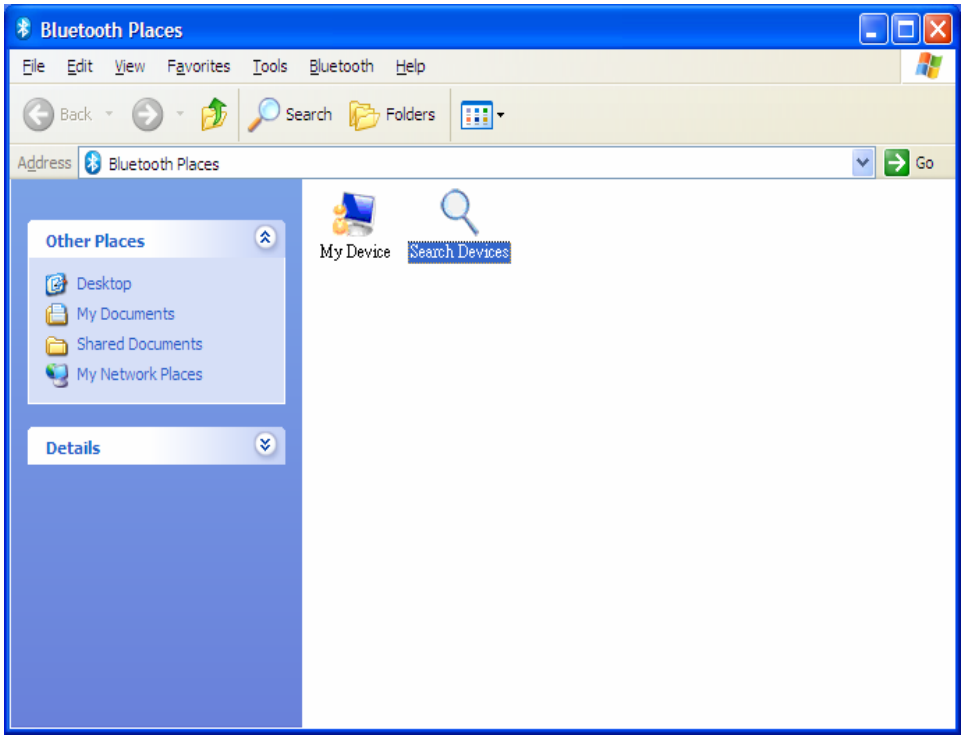
users can find the USB driver on the attached CD, the USB driver can be installed for Microsoft Windows, and XP system. User can easily install USB driver, the USB driver can automatically install the driver when user execute it.

5.4 Bluetooth Connection

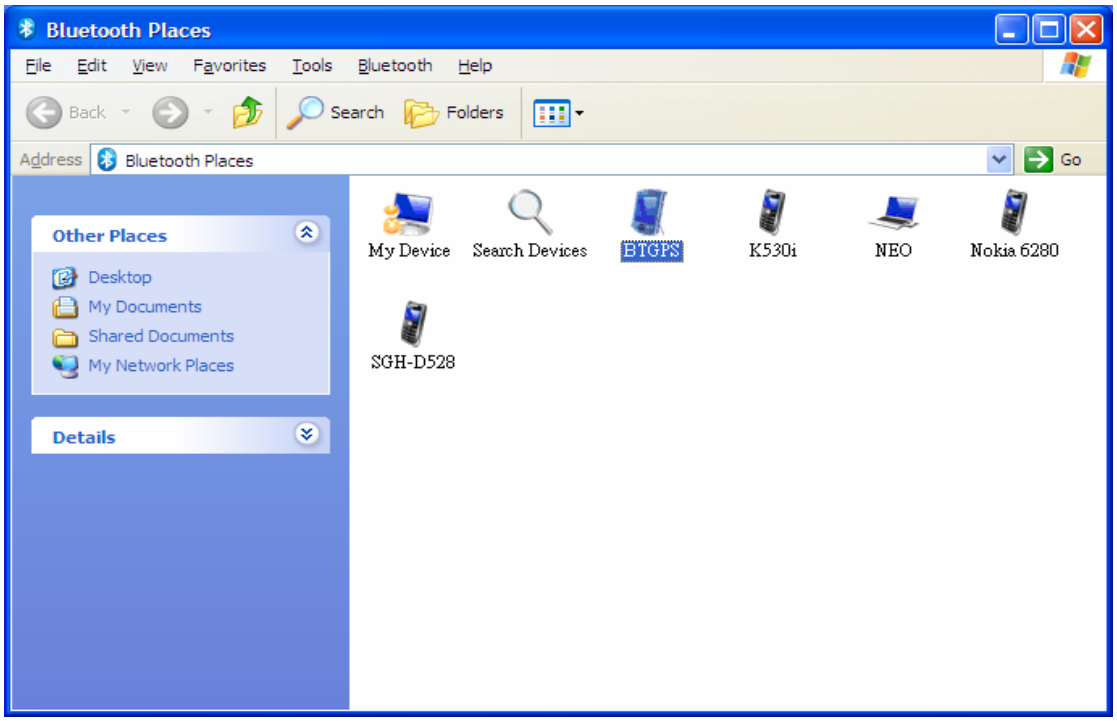
5.4.1 Laptop or Notebook

5.4.1-1 BlueSoleil instructions 1:

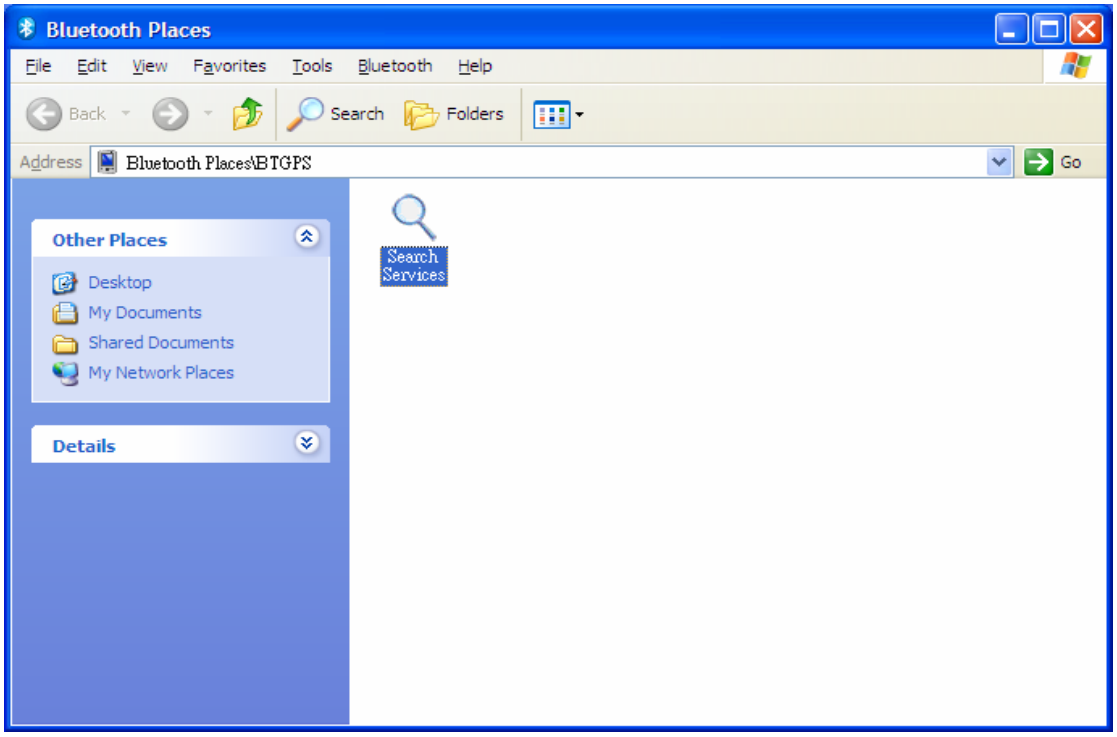
Please click the program on desktop and the window below will appear.



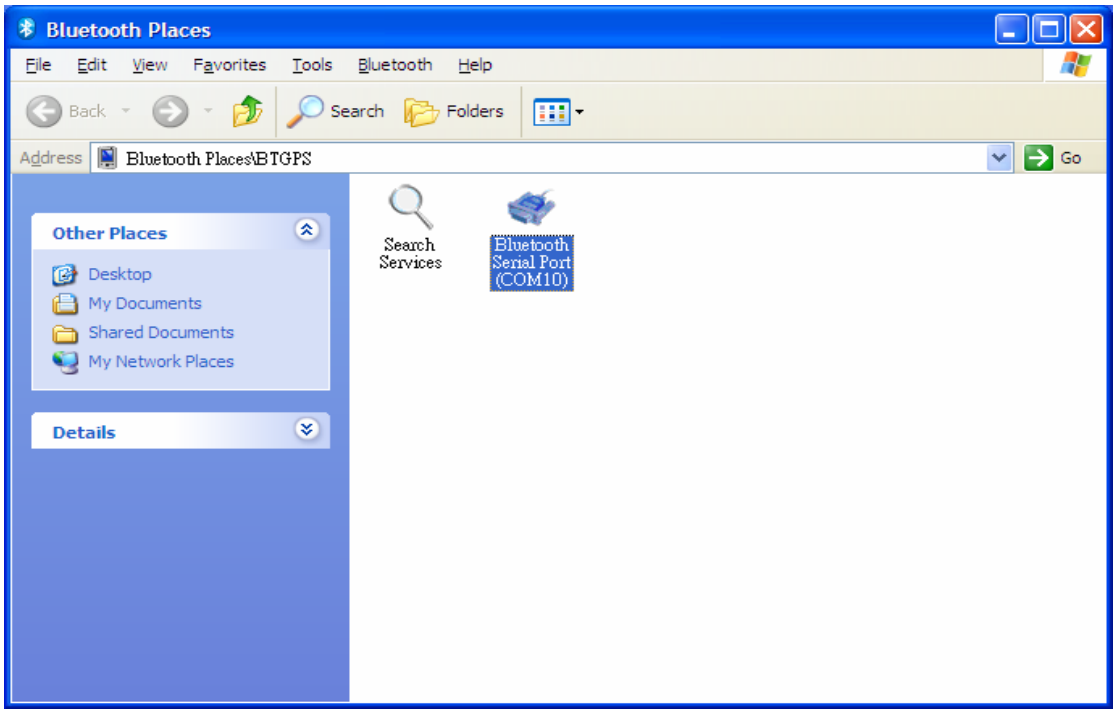
Please click “Search Devices”



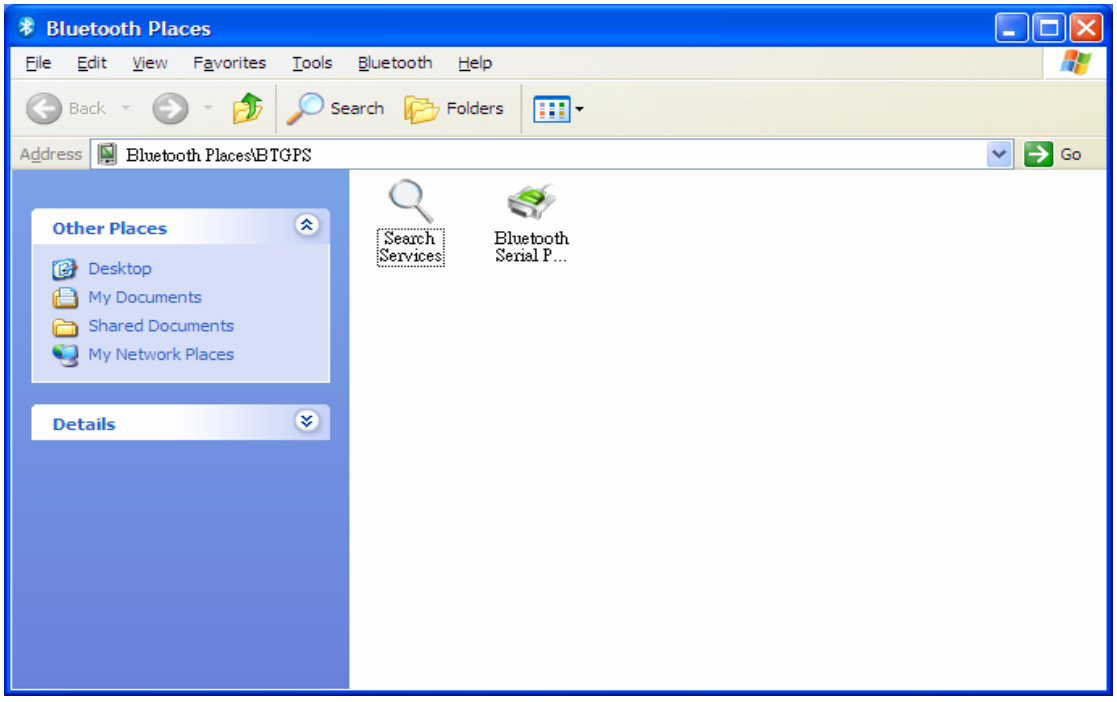
Bluetooth devices nearby will be searched. Please select “BTGPS” among them.



Please click “Search Services”



Available service will show up. Please choose “Bluetooth Serial Port (COM10)”, it will be pairing with BTGPS. (COM10 is regarded as an example, Physical COM PORT depends on users’ computers.)



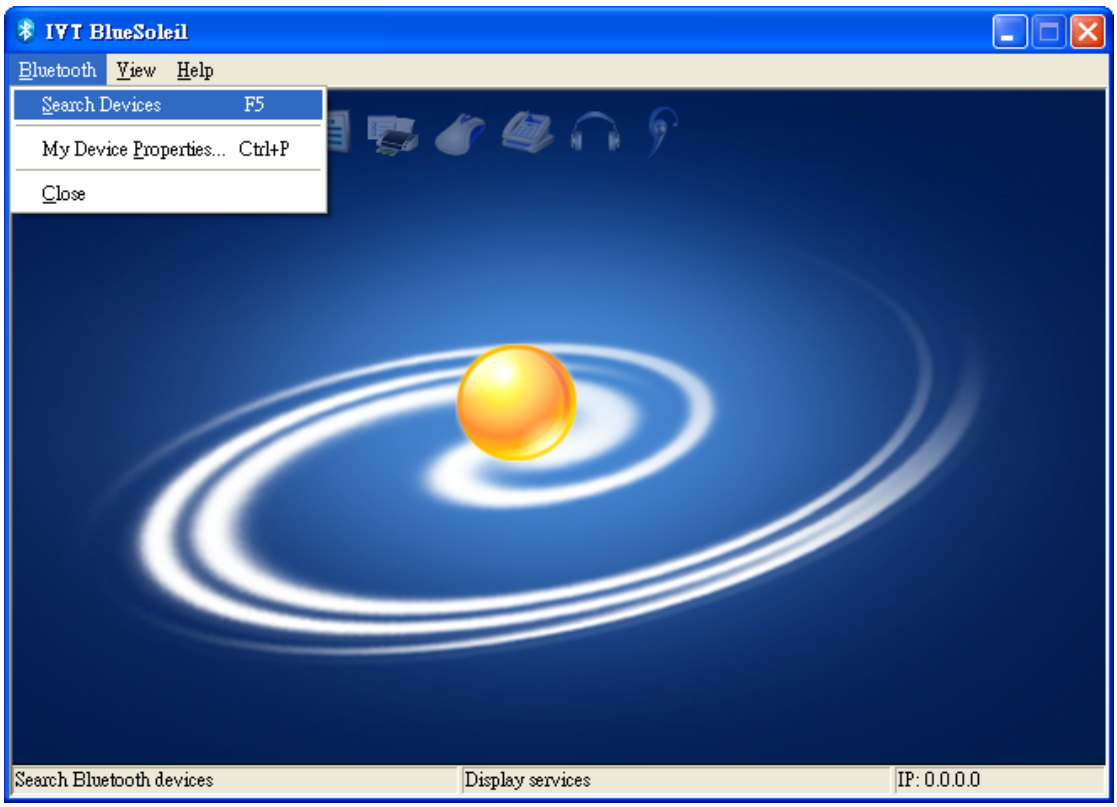
After connection is complete, the illustration will become green color.

5.4.1-2 BlueSoleil Instructions 2:

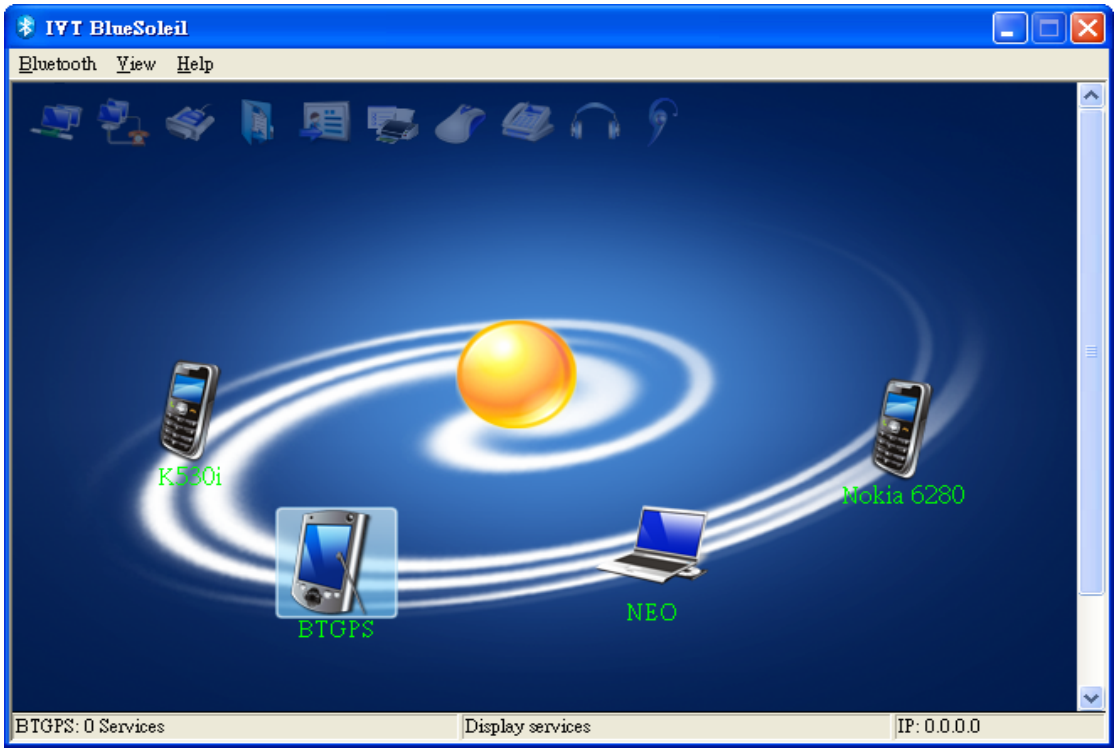
BlueSoleil classic use interface

Please Right click Bluetooth illustration in Tool on the mouse and select “Display Classic View”.

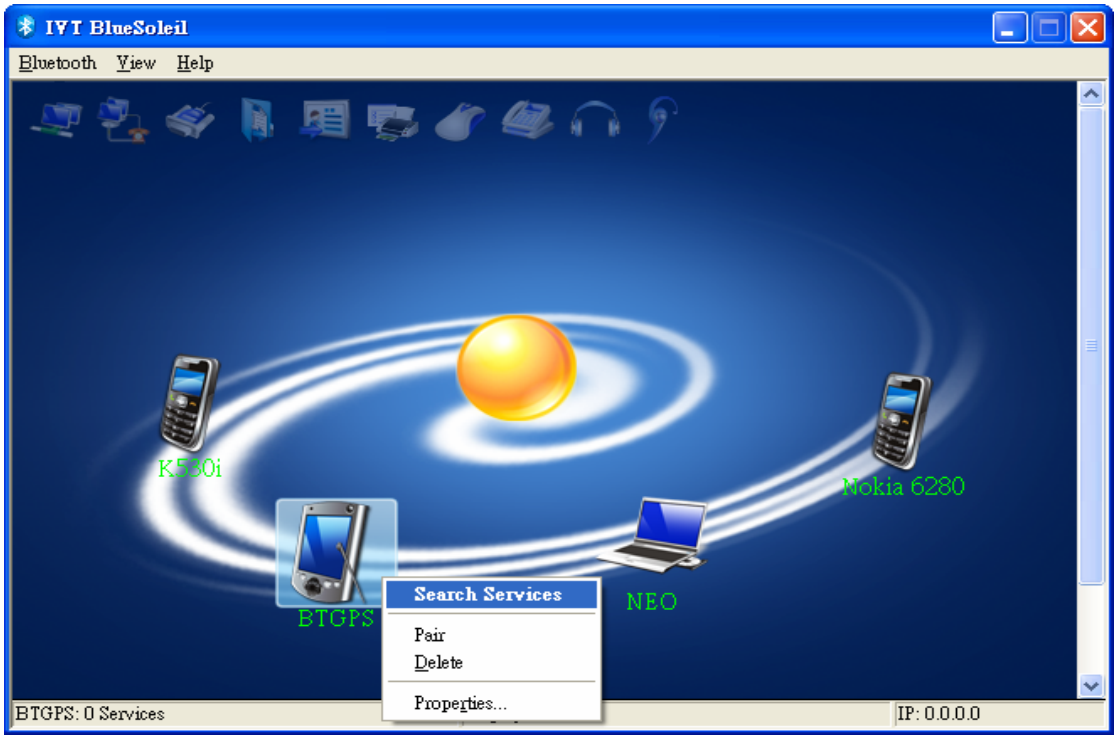
Classic window will appear.



Please click “Bluetooth and select “Search Device”.



Bluetooth devices nearby will be searched. Please choose “BTGPS among them.



Please right click “BTGPS illustration on the mouse and select “Search Services”.

Available service will show up. Please choose “Bluetooth Serial Port (COM10)”, it will be pairing with BTGPS. (COM10 is regarded as an example; Physical COM PORT depends on users’ computers.)

Please right click applicable item on the mouse and select “Connect”. It will complete Bluetooth connection.

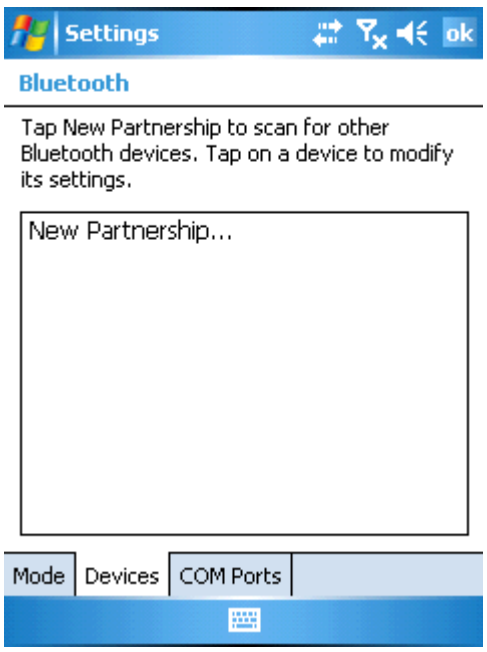
After connection is complete, the illustration will become green color.

5.4.2 PDA or Smart Phone

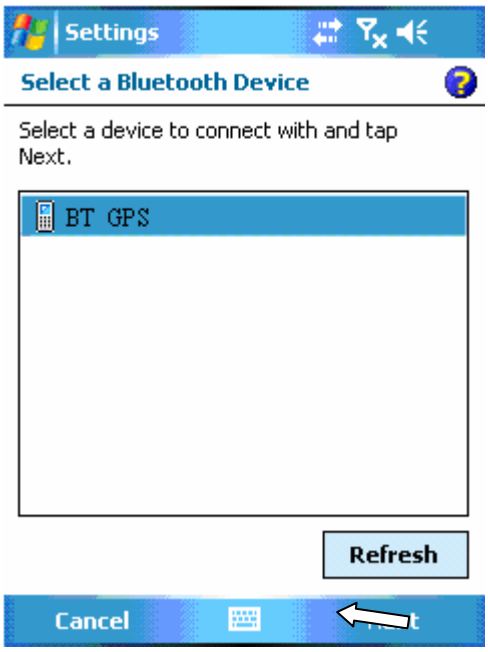
Mobile5 BT setup

Turn On your **Bluetooth GPS** and setup; follow the setup process in your Windows Mobile 5 phone:

Go to the **Devices** tab and choose **New Partnership**

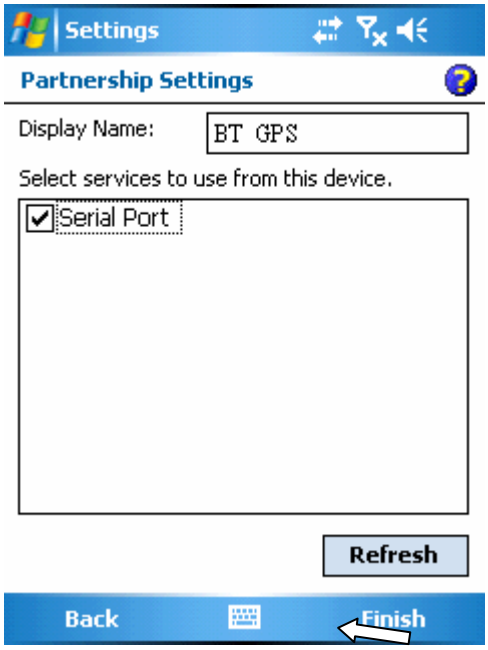


Choose **BT GPS** and select **Next**

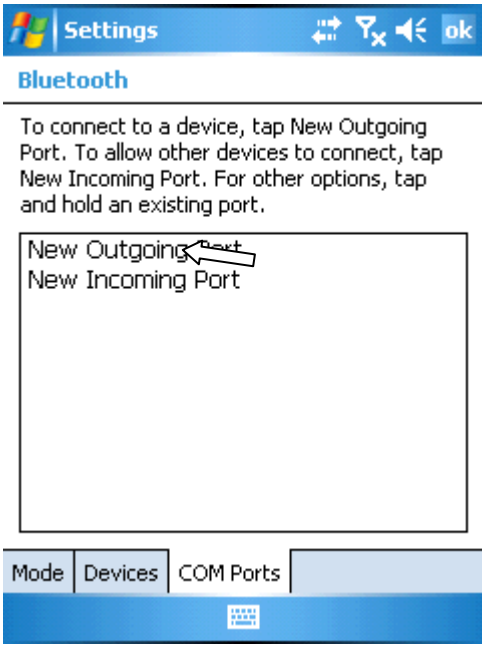


You will be asked for the passkey, enter "**0000**" and then select **Next**

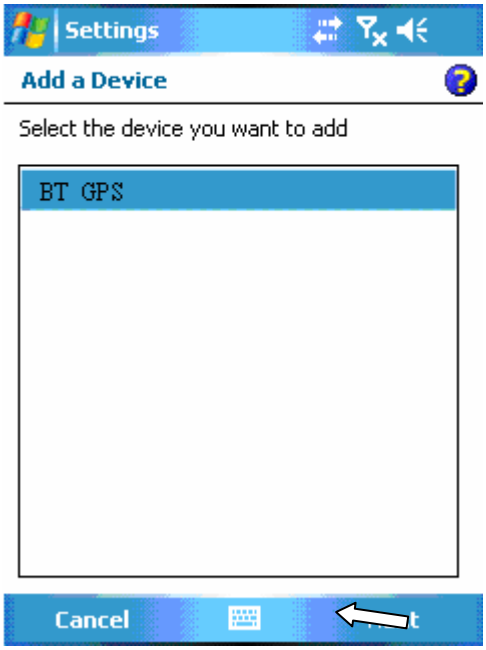
select **Serial Port** under the available services list



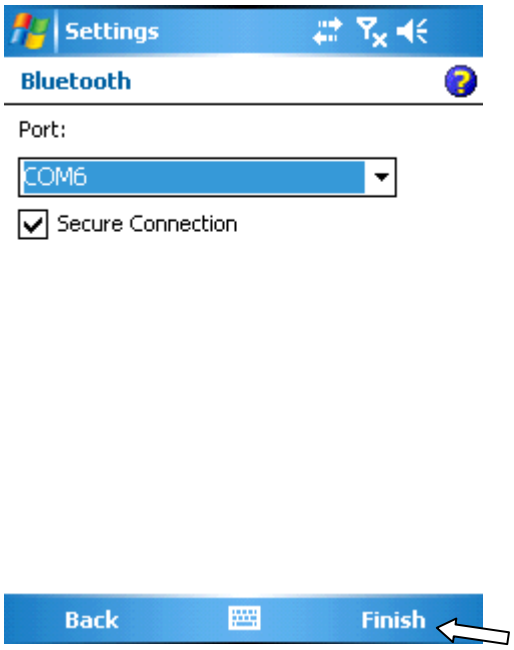
Now go to the **COM Ports** tab and select **New Outgoing Port**


Settings
ok
Bluetooth
To connect to a device, tap New Outgoing Port. To allow other devices to connect, tap New Incoming Port. For other options, tap and hold an existing port.
New Outgoing Port
New Incoming Port
Mode
Devices
COM Ports

Choose **BT GPS** from the list and select **Next**



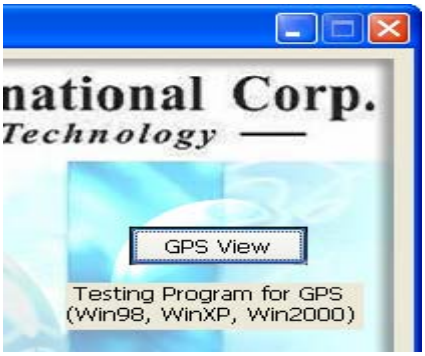
Select the desired GPS COM port for your device (eg: COM 6), make sure **Secure Connection** is marked and choose **Finish**



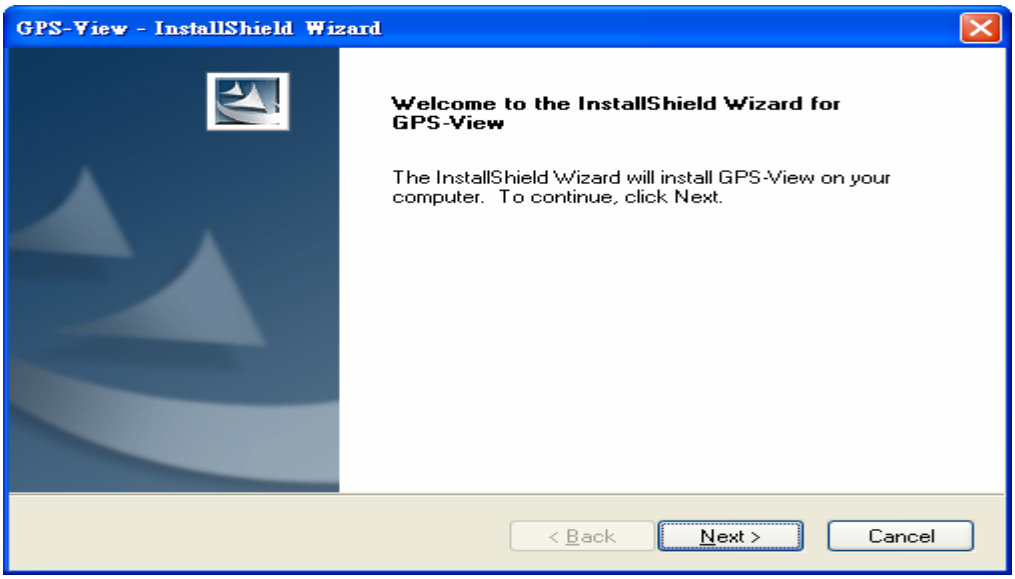
6. GPS Testing Software

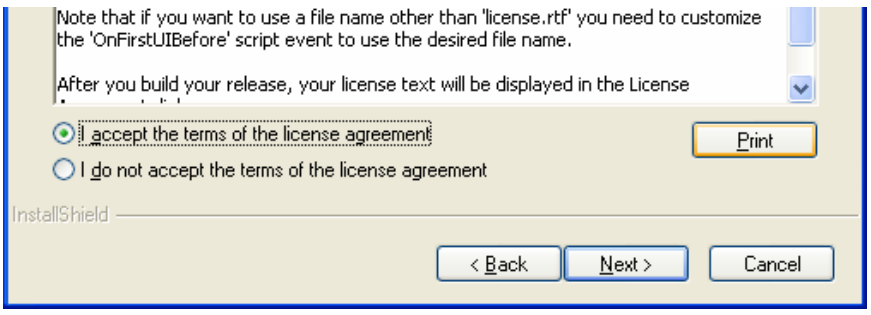
6.1 GPSView for Windows 2000/XP (PC or Notebook)

6.1.1 Install GPS View for Windows 2000/XP

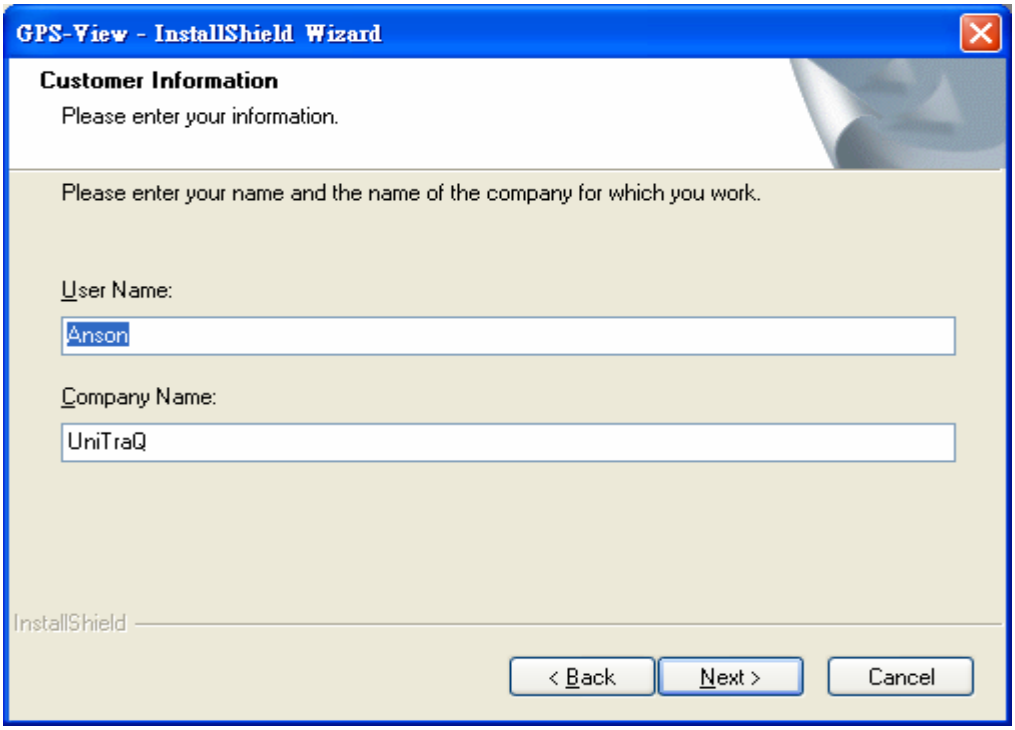


Please select " GPS View" Then installation Window will appear. Please click " Next". Please refer to the following window .

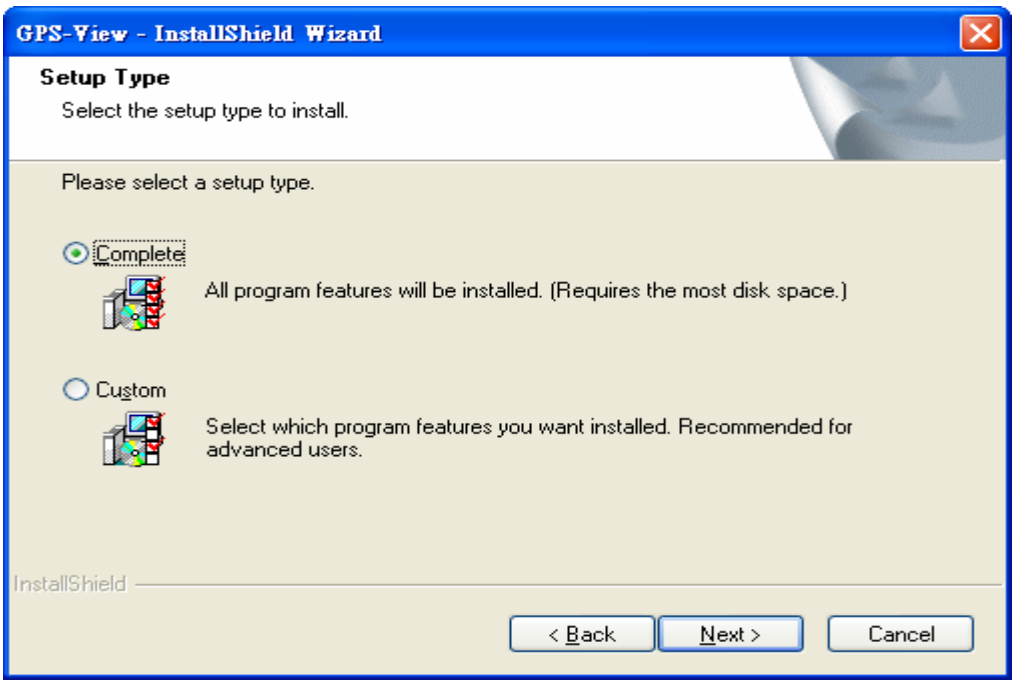

GPS-View - InstallShield Wizard
Welcome to the InstallShield Wizard for GPS-View
The InstallShield Wizard will install GPS-View on your computer. To continue, click Next.
< Back
Next >
Cancel


Note that if you want to use a file name other than 'license.rtf' you need to customize the 'OnFirstUIBefore' script event to use the desired file name.
After you build your release, your license text will be displayed in the License
I accept the terms of the license agreement
I do not accept the terms of the license agreement
Print
InstallShield
< Back
Next >
Cancel

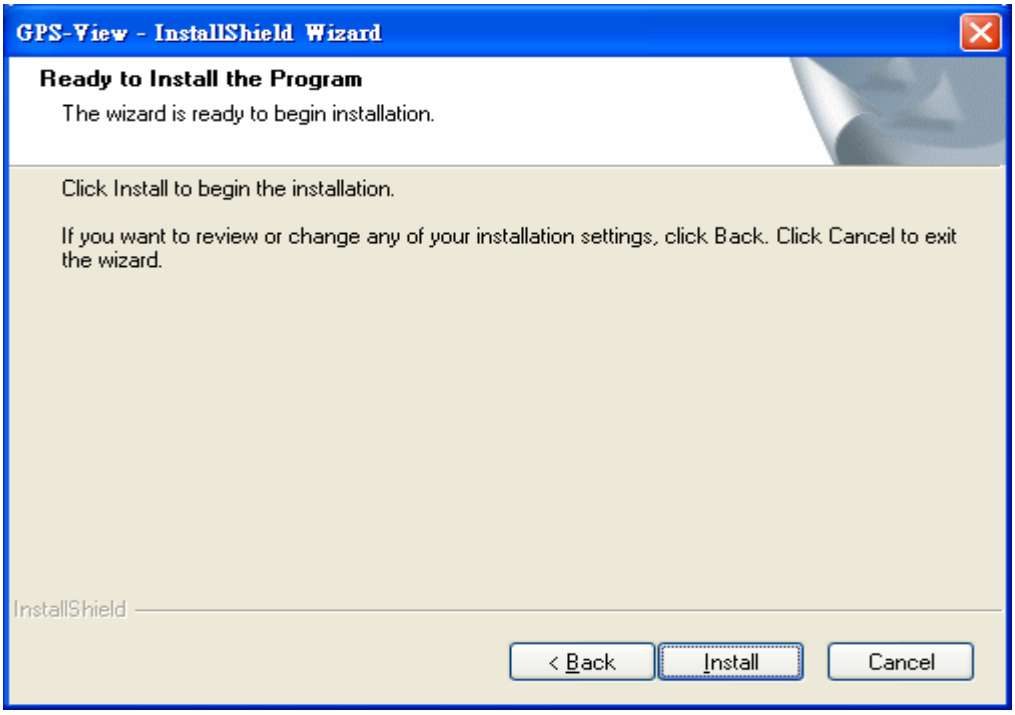
Please click " I accept the terms of the license aggrement" and then go to "Next"



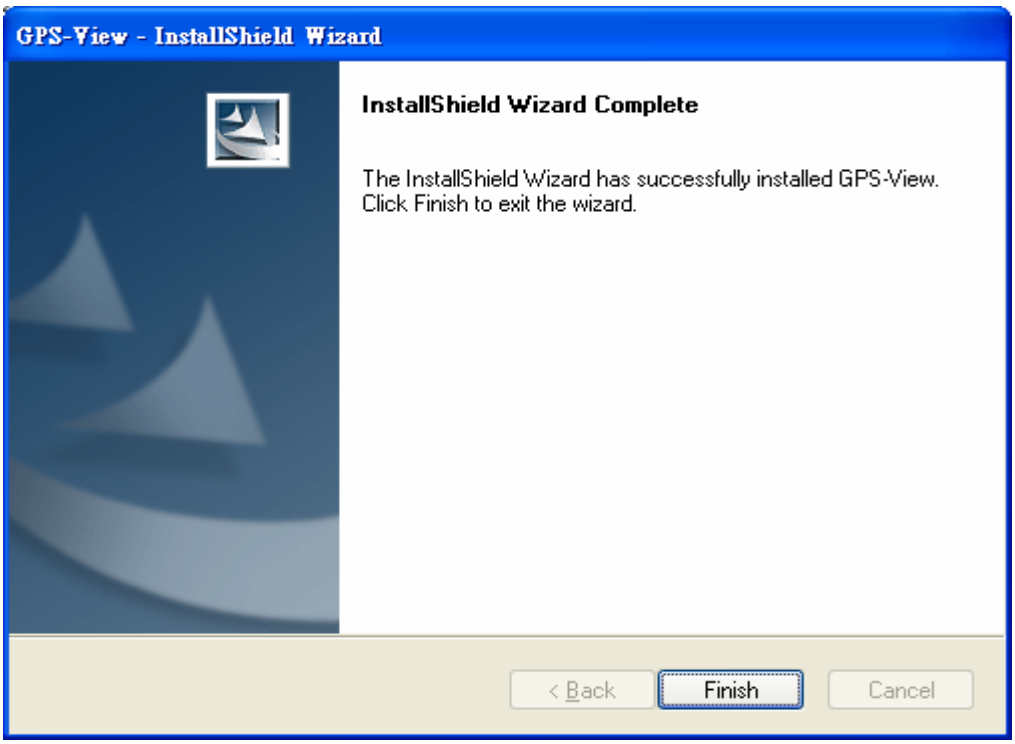
Please enter the details of User and then click” Next”.


GPS-View - InstallShield Wizard
Setup Type
Select the setup type to install.
Please select a setup type.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Select which program features you want installed. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel

Please select “ Complete” and then click “ Next”.

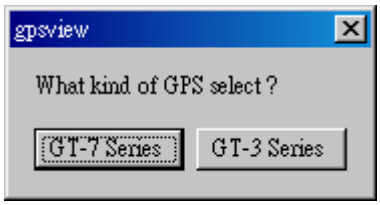

GPS-View - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

Please click “ Install”. Start installing.

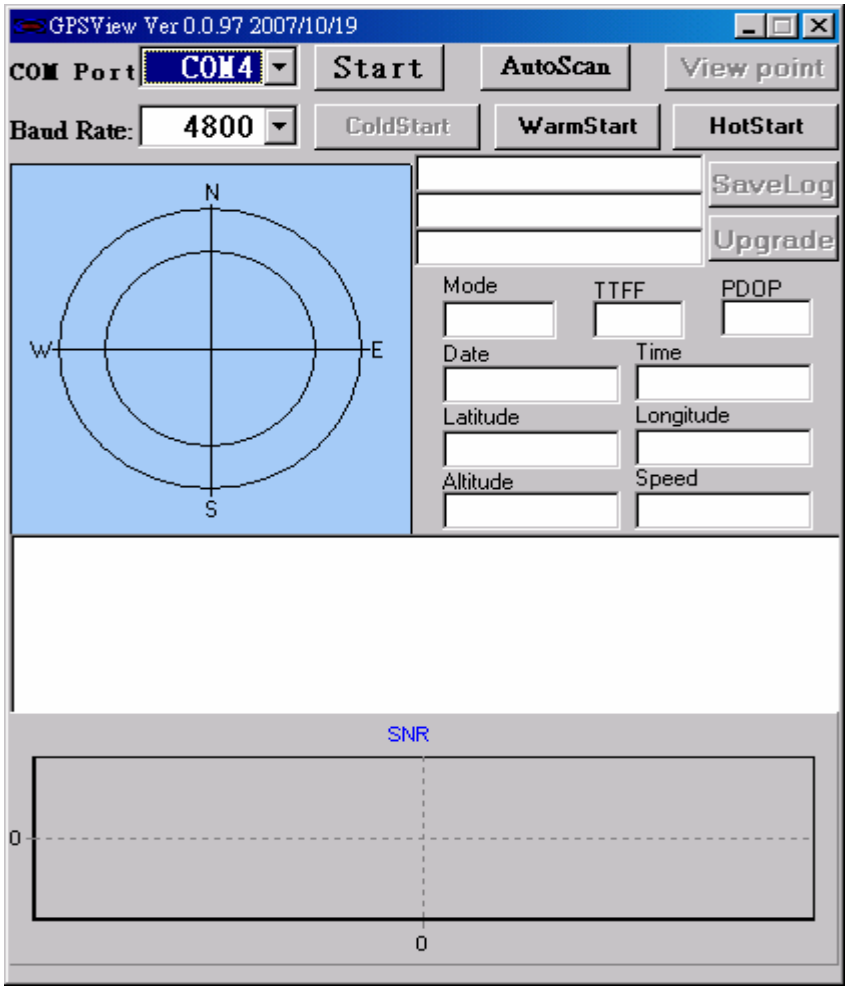

GPS-View - InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed GPS-View. Click Finish to exit the wizard.
< Back
Finish
Cancel

Complete Installation.

6.1.2 Using GPSView for Windows 2000/XP

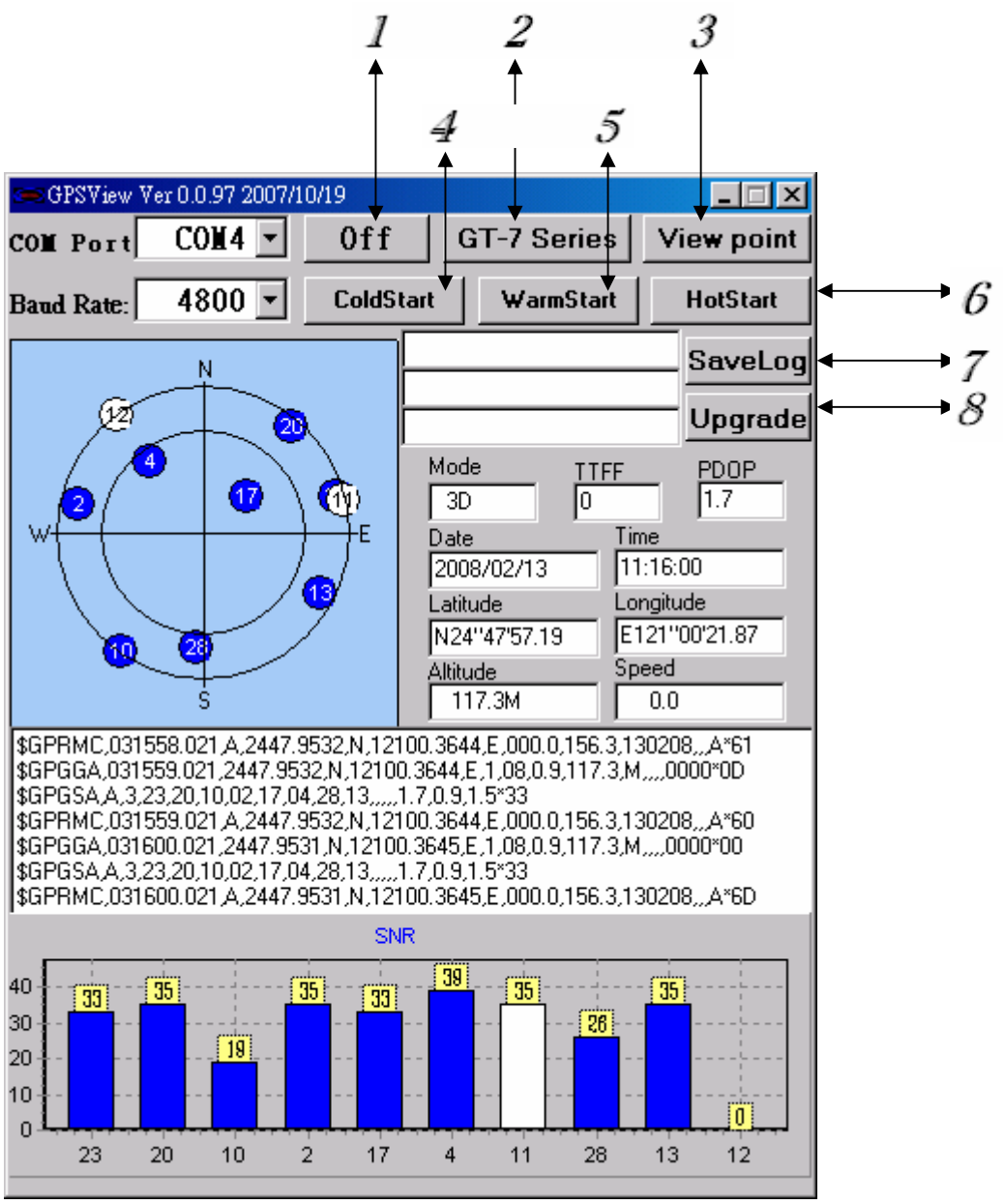


Execute GPS View Selection Series. Enter the Window below.



Click on “**Auto Scan**”or Select “COM PORT” which will connect to BT-GPS, then Click on “**Start**”.

It will display the connection status of GPS and NMEA as shown below.



1. Off the GPS connection
2. Series Selection
3. Open Position Coordinate Window
4. Execute Cold Start
5. Execute Warm Start
6. Execute Hot Start
7. Save NMEA Data(Automatically save in the same Program file)
8. Upgrade Firmware(If upgrading Firmware, save it in the same Program file)

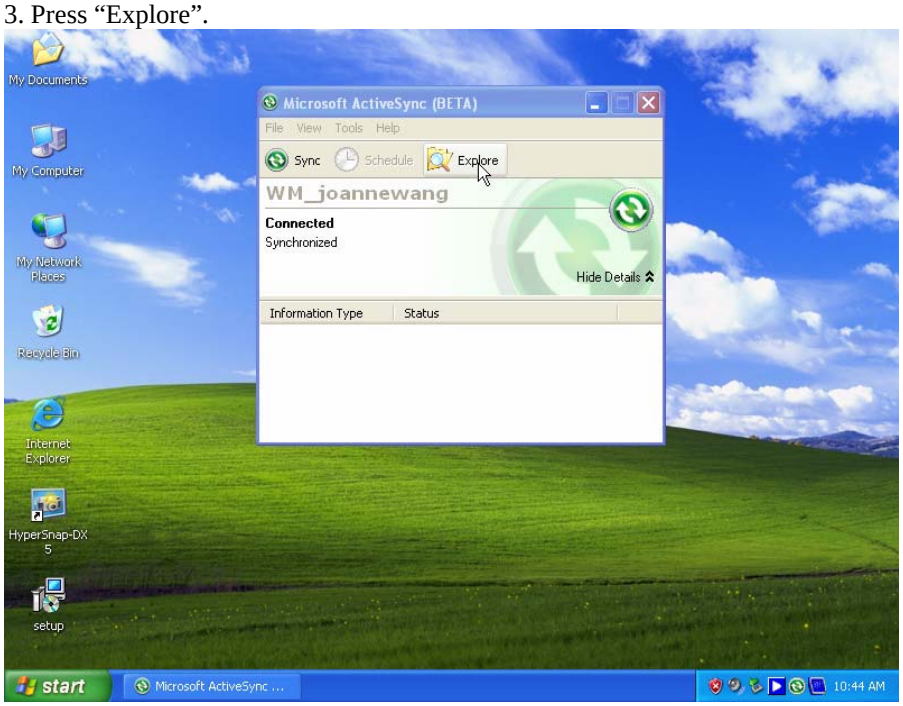
6.2 Install GPSView for Win CE (PDA or Mobile Phone)

6.2 1 Installing the GPSView Software into Win CE Mobile Phone:

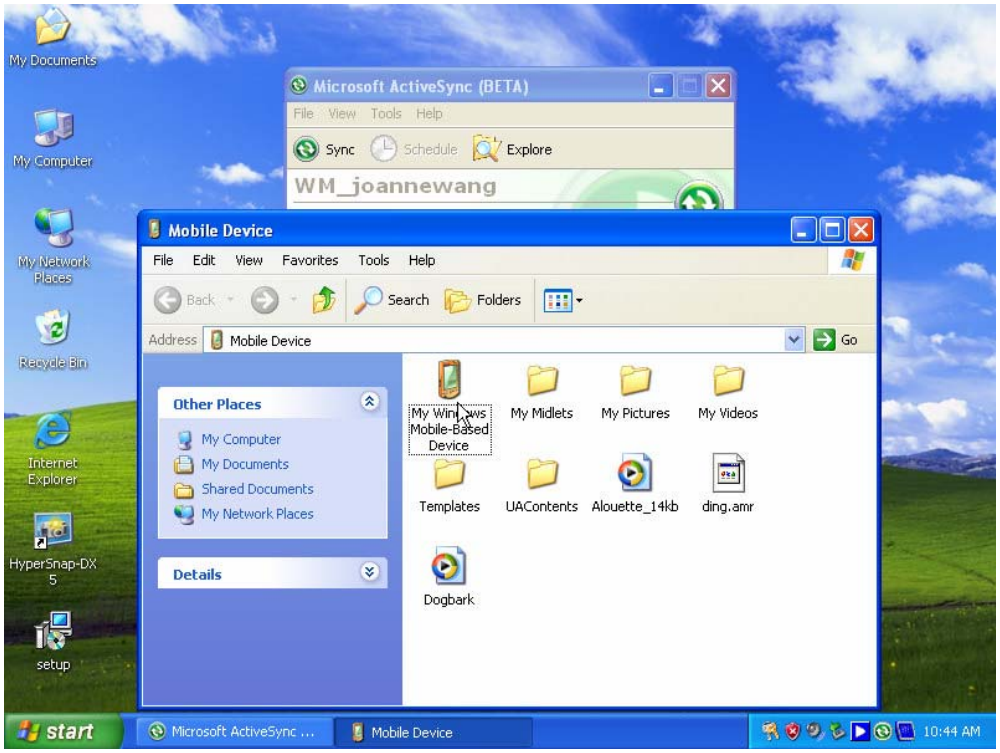
1. After starting your computer, put Mobile Searcher Software CD into CD-ROM.

2. Press the symbol of ActiveSync.

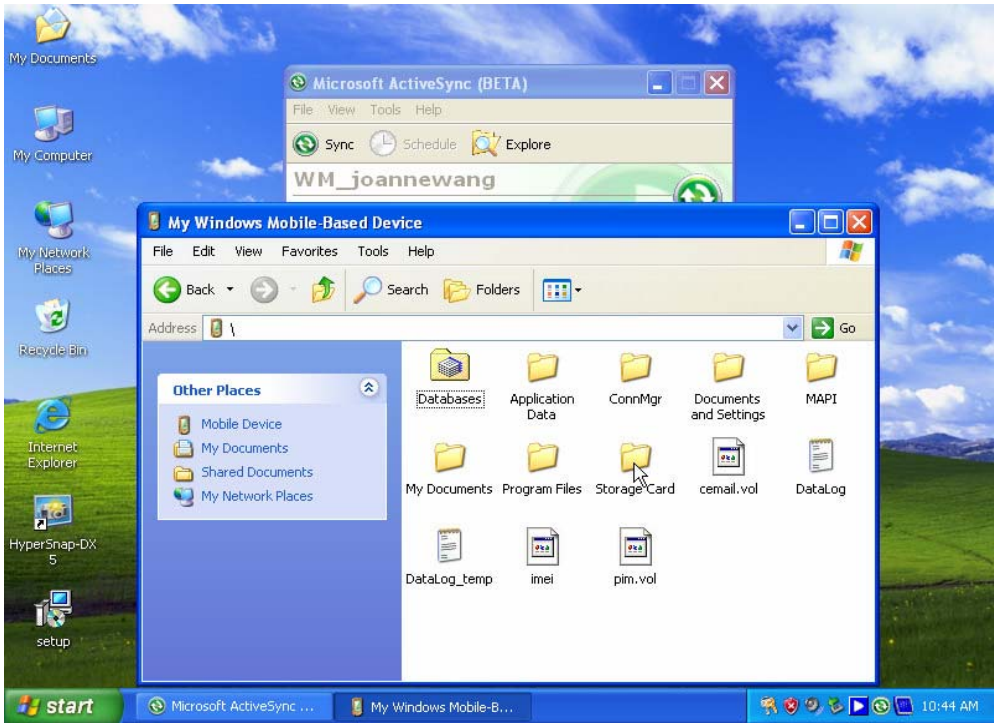
3. Press “Explore”.



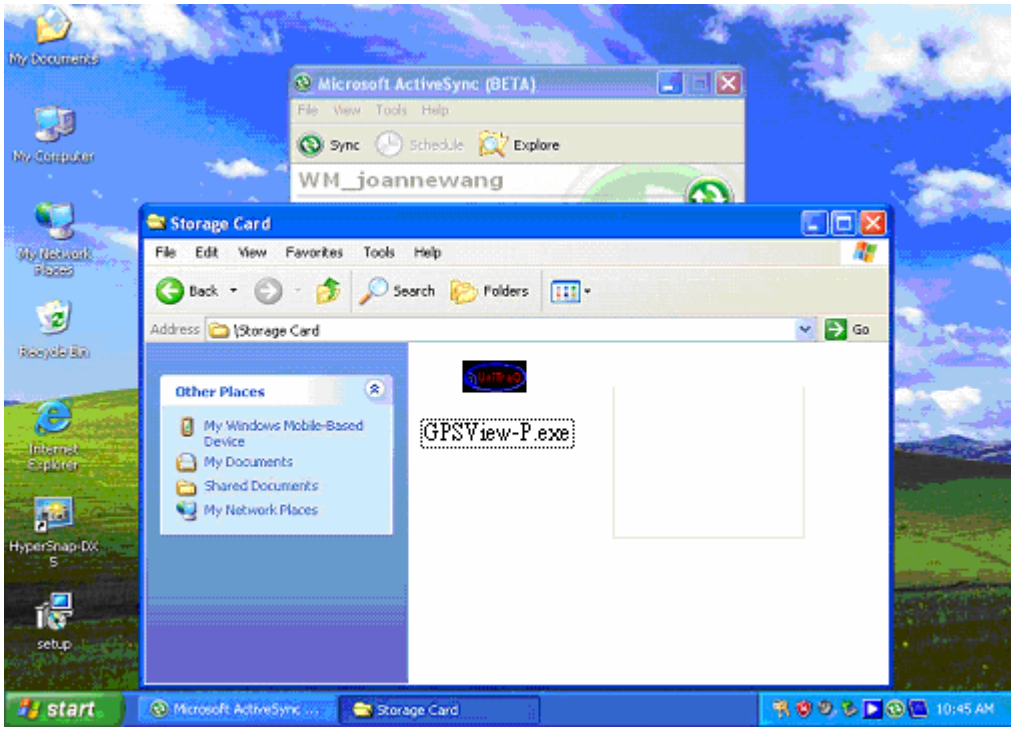
4. Select “My Windows Mobile-Based Device”.



5. Select “Storage Card”.



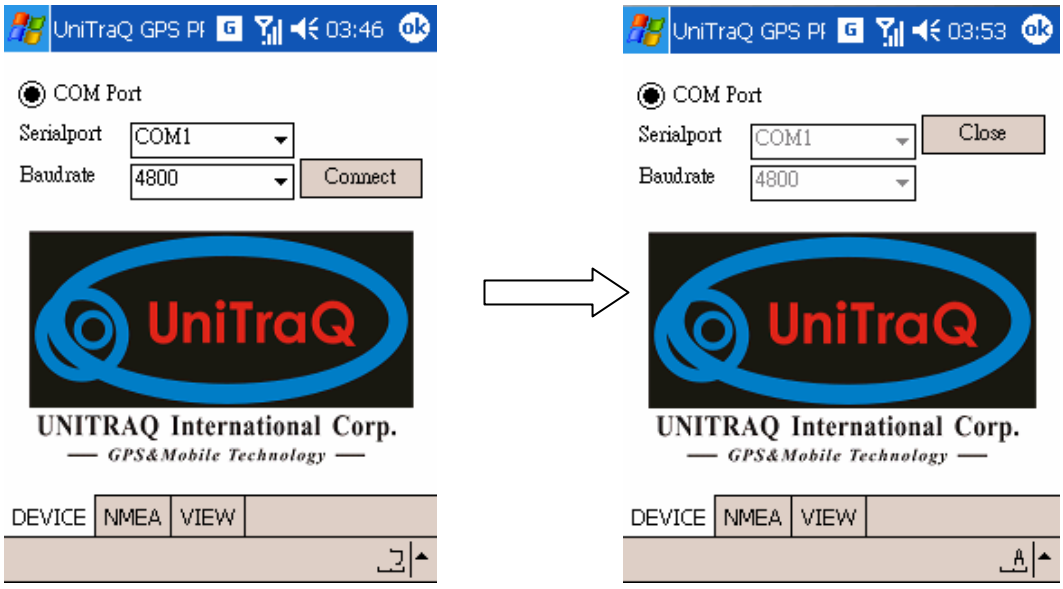
6. Copy the file of “GPSView-P.exe” from CD-ROM and paste it on “Storage Card”.



6.2.2 Using GPSView Software (For Win CE Mobile Phone)

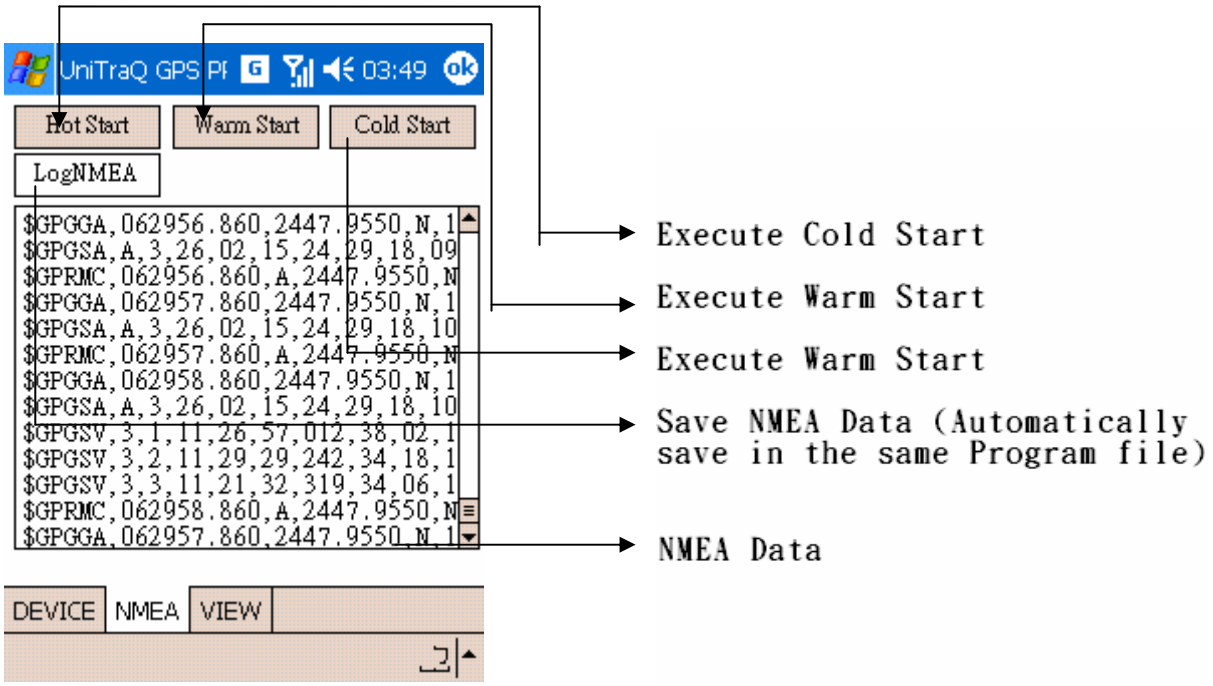
1. Switch on your Win CE mobile phone and open “File Explorer”.

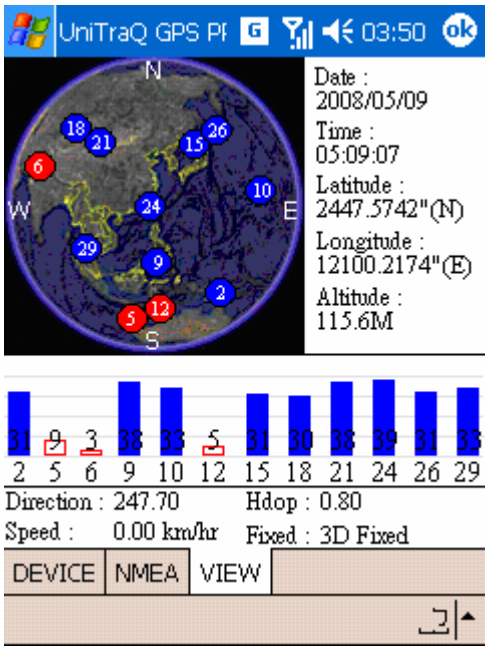
2. Find out the document of “Storage Card” and open the file of “Locate”.



Select “COM PORT” which will connect to BT-GPS, then Click on “**Start”**. It will display the connection status

of GPS and NMEA as shown below.



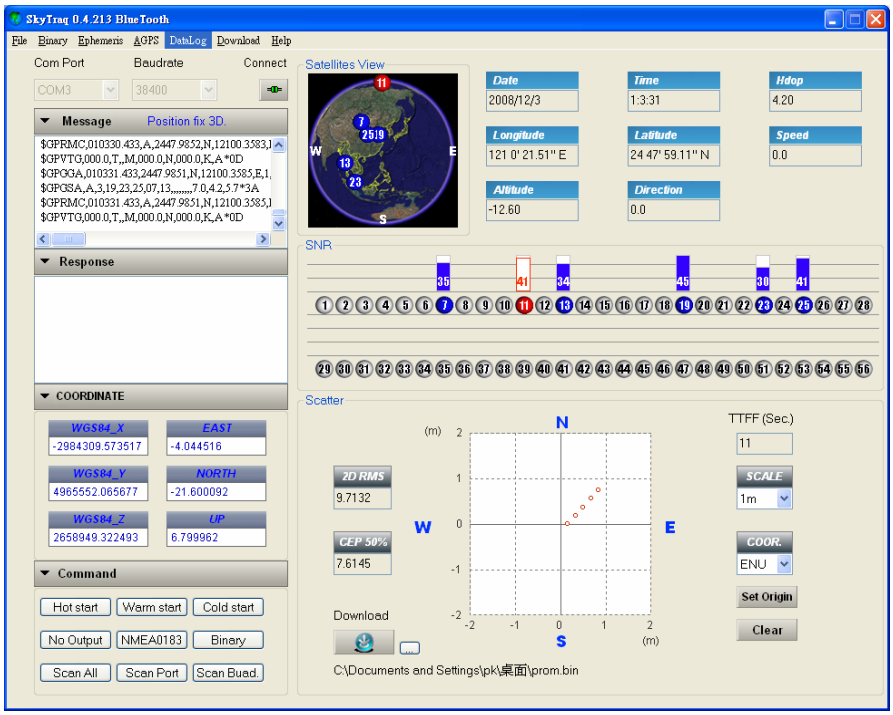


Display the pages which is usable information for satellites

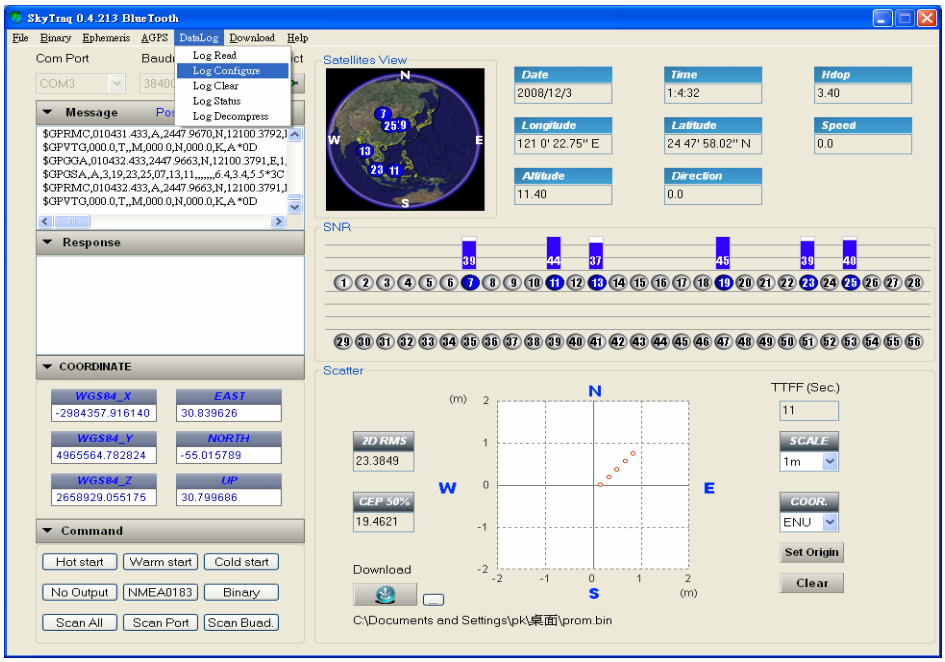
6.3 Data log

6.3.1 Set up Data Log

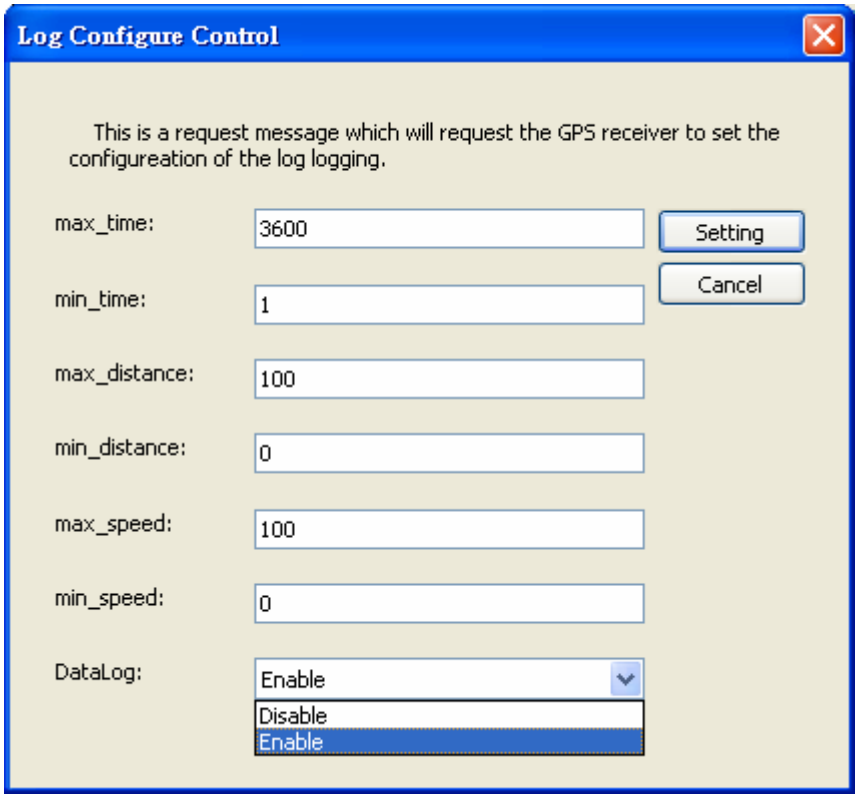
1. Execute Data log.exe.



2. Select “DataLog → Log Configure”

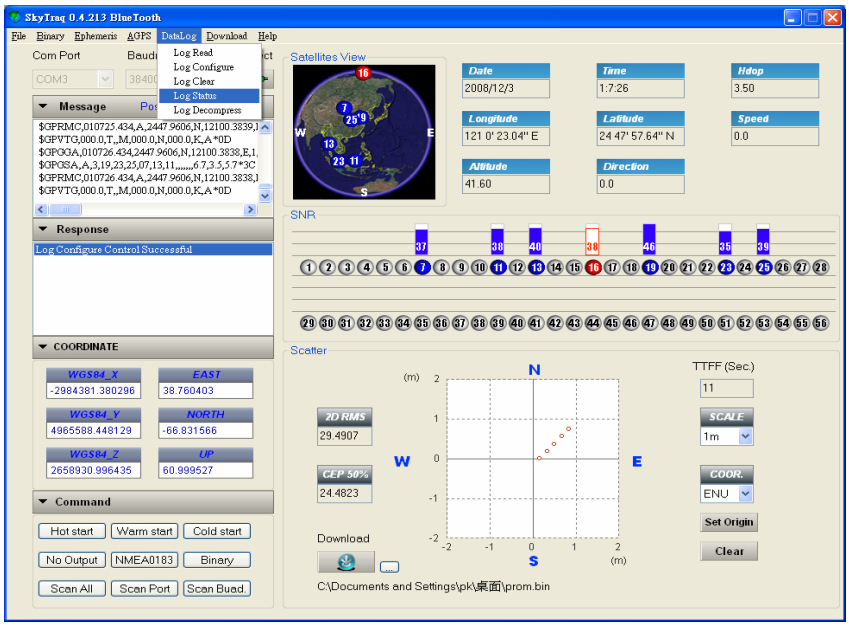


3. Configure your favorite log time “min_time” (by seconds) and “Enable” the Data log.

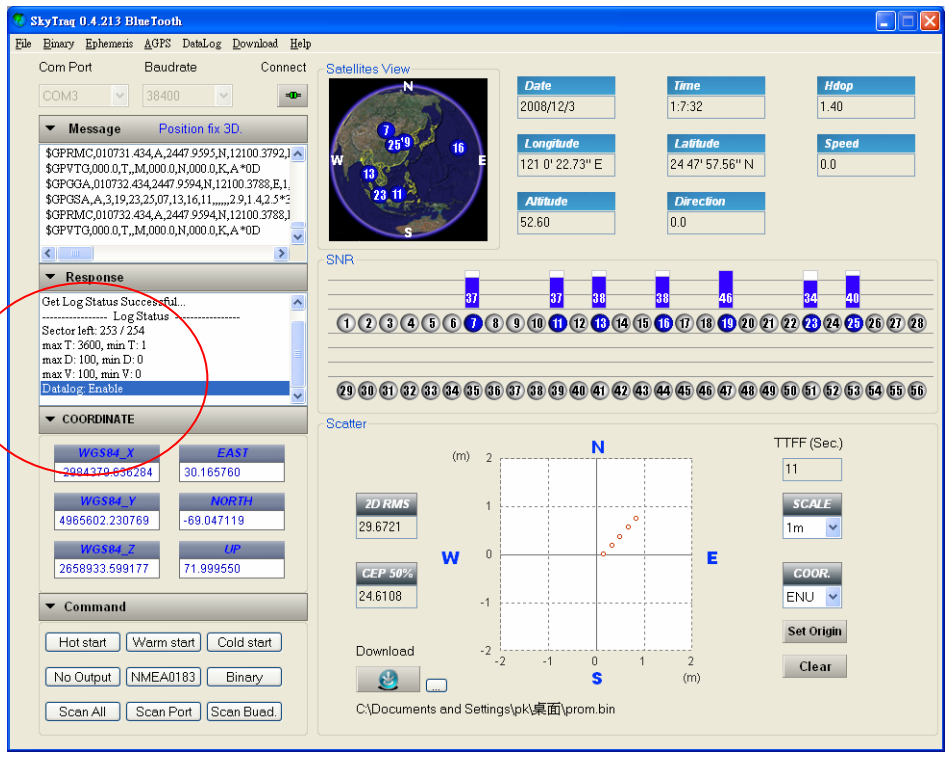


6.3.2 Check the status of configure

1. Select “DataLog →Log Status”

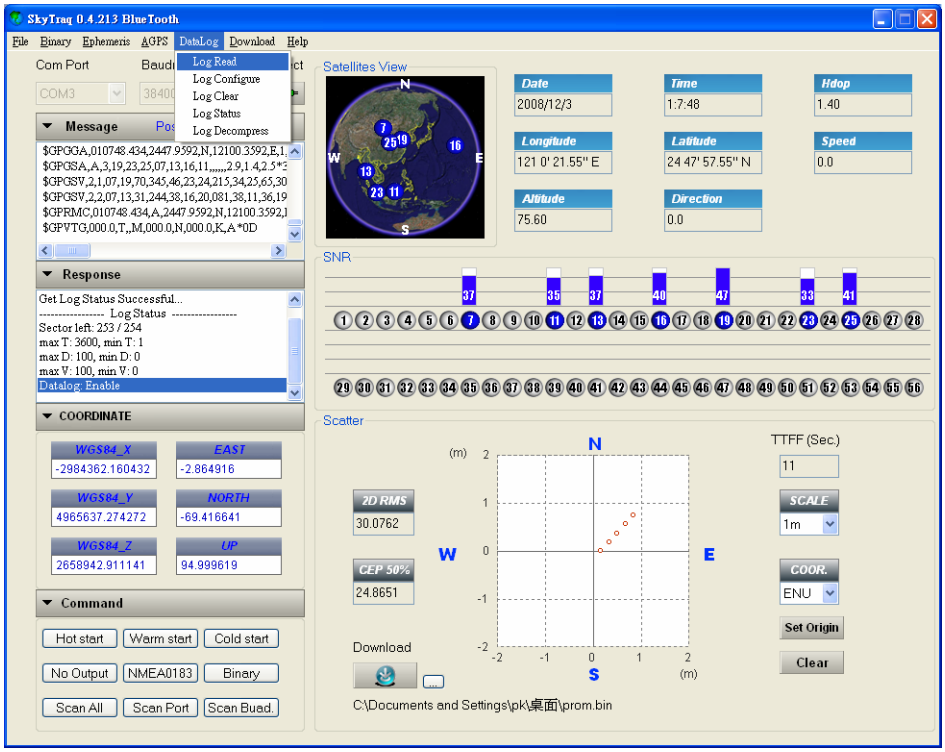


2. The window of “Response” will display the above configured status.

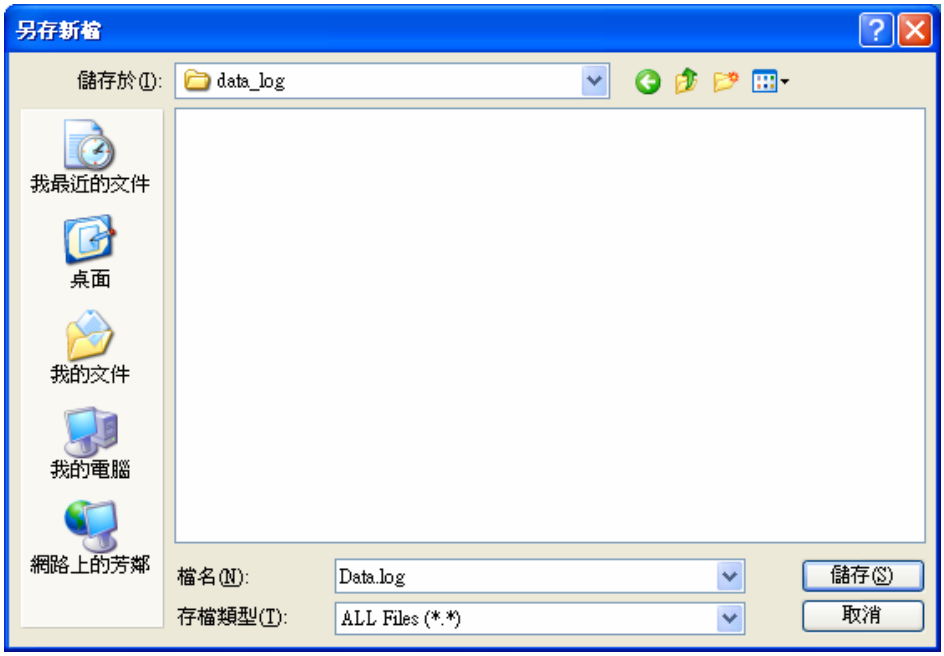


6.3.3 Retrieve the content of Data Log

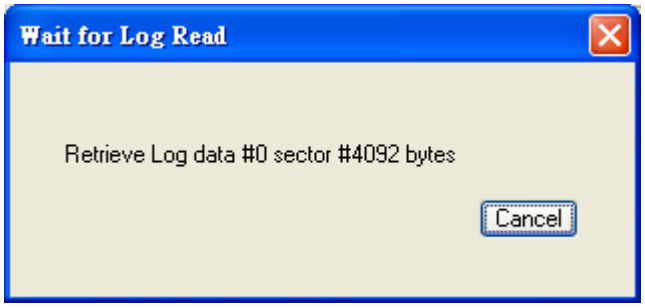
1. Select “DataLog →Log Read”



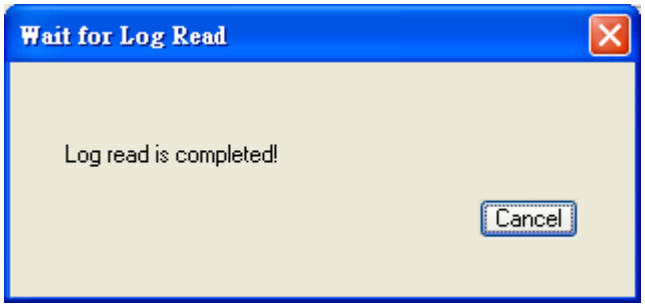
2. Select the to be stored file path and file name. (ex. Data.log)



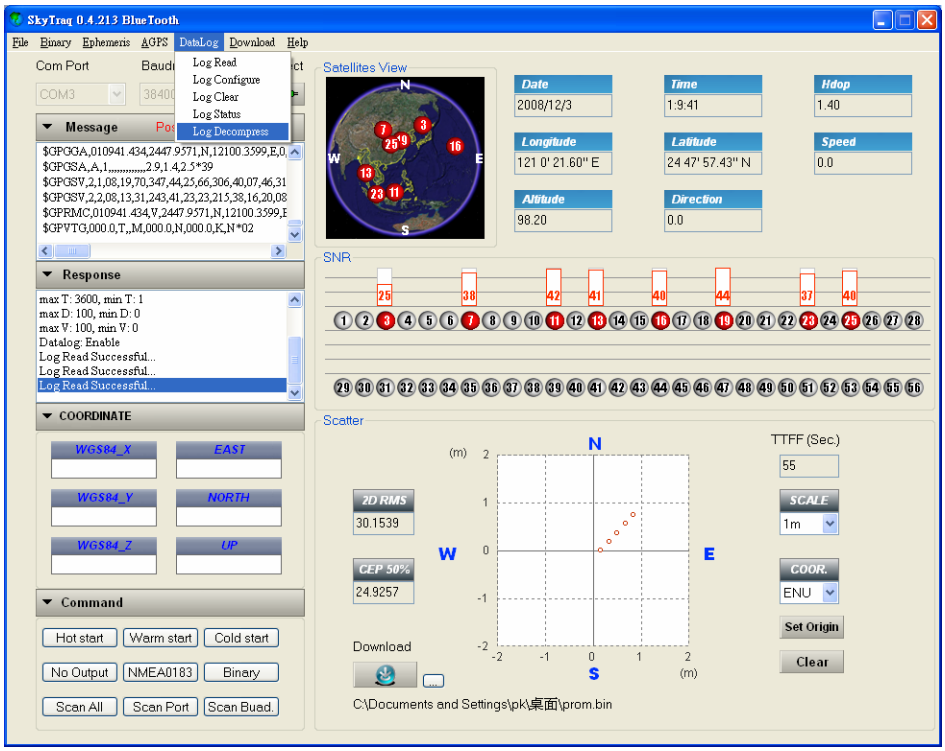
3. Click on the “Store” to retrieve the logged data.



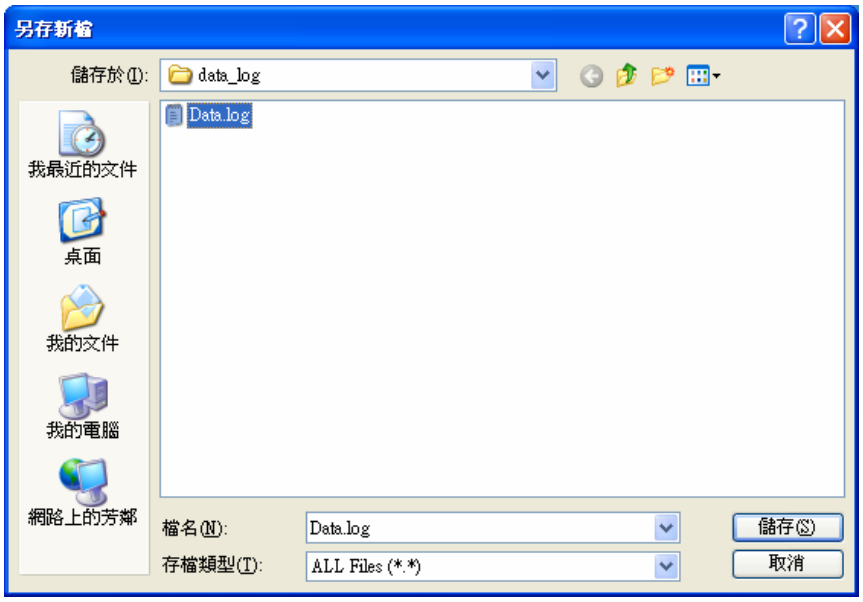
The completed window.



4. Decompress the retrieved logged data by selecting “DataLog→Log Decompress”



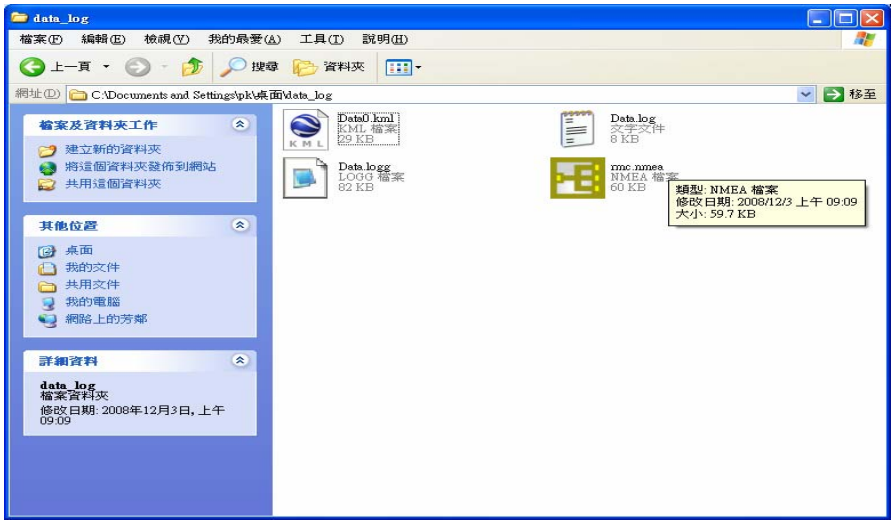
5. Select the pre-stored Data.log (for example).



6. Click on the “Store” to perform the decompression as follows.

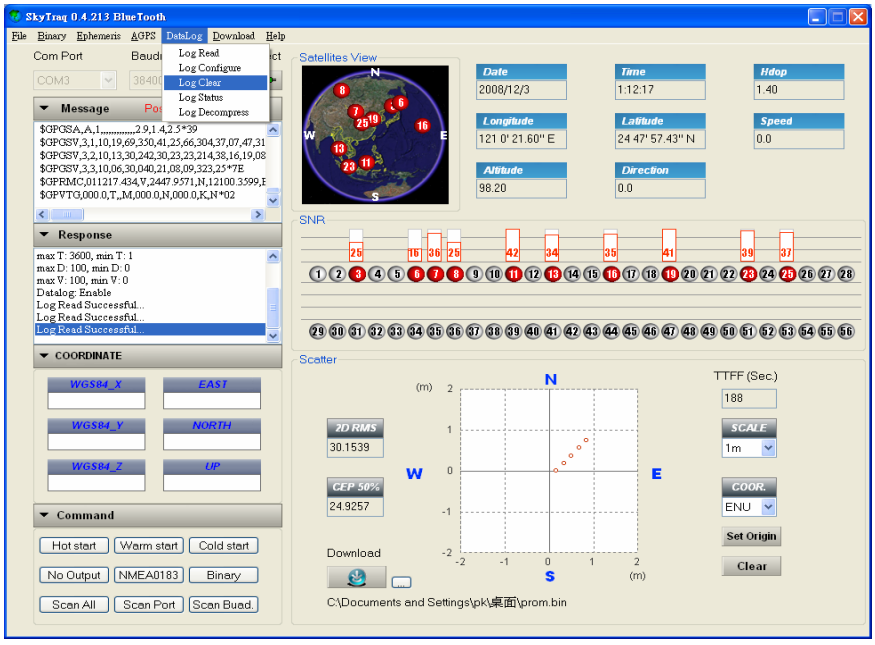
7. After the decompression, some files will be generated as the figure.

The *.kml file can be applied to the Google Earth and display the tracked trace.



6.3.4 Clear the Data Log

1. To clear the logged memory, select “DataLOg→Log Clear”



2. Click “YES” to clear out the whole logged data.

UniTraQ International Corp

2F., No.136, Ziqiang S. Rd., Zhubei City, Hsinchu County 30264, Taiwan (R.O.C.)

TEL：886-3-6578491 FAX：886-3-6578492

Email support@unitraq.com
Website www.unitraq.com

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